PATENT ASSIGNMENT

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SUBMISSION TYPE:		NEW ASSIGNMENT			
NATURE OF CONVE	YANCE:	ASSIGNMENT	ASSIGNMENT		
CONVEYING PARTY	DATA				
		Name	Execution Date		
Santhosh V. Kudva			06/25/2011		
Michael E. Bappe			05/17/2011		
Helen S. Raizen			05/18/2011		
Thomas W. Bennett			05/18/2011		
RECEIVING PARTY I	DATA				
Name:	EMC Corporat	ion			
Street Address:	176 South Street				
City:	Hopkinton				
State/Country:	MASSACHUSETTS				
Postal Code:	01748				
Property T	уре	Nu	mber		
Application Number: 1307		13077175			
CORRESPONDENCE	E DATA				
Fax Number:	(508)366	-4688			
	. ,	<i>Hail when the fax attempt is unsucce</i>	essful.		
Phone:	508-616-	-			
Email: Docket@BainwoodHuang.com					
Correspondent Name: Bainwood, Huang & Associates, LLC					
Address Line 1: 2 Connector Road					
Address Line 4:	Westbord	ough, MASSACHUSETTS 01581			
	ATTORNEY DOCKET NUMBER: 1003-116				
	NUMBER:	1003-116			
		David E. Huang, Esq.			

Total Attachments: 18 source=1003-116 - Executed Assignment - Inv 1#page1.tif

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PATENT/Joint Assignment Attorney Docket No.: 1003-116 EMC Docket No.: EMC-10-349

ASSIGNMENT

WHEREAS, we, Santhosh V. Kudva, Michael E. Bappe, Helen S. Raizen and Thomas W. Bennett have invented an invention comprising and/or embodying certain improvements or discoveries or both as described in an application for Letters Patent of the United States entitled ELECTRONICALLY CONTROLLING COMMITMENT OF A CHANGE TO STORED INFORMATION the specification of which:

- [] is being executed on even date herewith and is about to be filed in the United States Patent Office;
- [X] was filed on March 31, 2011 as U.S. Application No. <u>13/077,175;</u>
- [] was patented under U.S. Patent No. _____on____

WHEREAS, EMC Corporation (hereinafter "ASSIGNEE"), a corporation organized and existing under the laws of the Commonwealth of Massachusetts and having a usual place of business at 176 South Street, Hopkinton, Massachusetts 01748 desires to acquire an interest therein in accordance with agreements duly entered into with us;

NOW, THEREFORE, to all whom it may concern be it known that for and in consideration of said agreements and of other good and valuable consideration, the receipt of which is hereby acknowledged, we have sold, assigned and transferred and by these presents do hereby sell, assign and transfer unto said ASSIGNEE, its successors, assigns and legal representatives, the entire right, title and interest in and throughout the United States of America, its territories and all foreign countries, in and to said invention as described in said application, together with the entire right, title and interest in and to said application and such Letters Patent as may issue thereon; said invention, application and Letters Patent to be held and enjoyed by said ASSIGNEE for its own use and behalf and for its successors, assigns and legal representatives, to the full end of the term for which said Letters Patent may be granted as fully and entirely as the same would have been held by us had this assignment and sale not been made; we hereby convey to ASSIGNEE all rights arising under or pursuant to any and all international agreements, treaties or laws relating to the protection of industrial property by filing any such applications for Letters Patent. We hereby acknowledge that this assignment, being of the entire right, title and interest in and to said invention, carries with it the right in ASSIGNEE to apply for and obtain from competent authorities in all countries of the world any and all Letters Patent by attorneys and agents of ASSIGNEE's selection and the right to procure the grant of all such Letters Patent to ASSIGNEE for its own name as assignee of the entire right, title and interest therein;

AND, we hereby further agree for ourselves and our executors and administrators to execute upon request any other lawful documents and likewise to

-1-

perform any other lawful acts which may be deemed necessary to secure fully the aforesaid invention to said ASSIGNEE, its successors, assigns and legal representatives, but at its or their expense and charges, including the execution of applications for patents in foreign countries, and the execution of substitution, reissue, divisional or continuation applications and preliminary or other statements and the giving of testimony in any interference or other proceeding in which said invention or any application or patent directed thereto may be involved;

AND, we do hereby authorize and request the Commissioner of Patents of the United States to issue such Letters Patent as shall be granted upon said application or applications based thereon to said ASSIGNEE, its successors, assigns, and legal representatives;

AND we hereby authorize our attorneys Bainwood Huang & Associates LLC to insert here in parentheses (______) the application number and filing date of said Application (or foreign counterpart application) to facilitate the recording or other official processing of this Assignment.

IN TESTIMONY WHEREOF, we have hereunto set our hands and affixed our seals as set forth below:

06/2011 Date:

Inventor's Signatur

Print full name of first inventor: Residence:

Citizenship:

Mailing Address:

Santhosh V. Kudva Canara Foundry, Maroli Mangalore, Karnataka 575005 INDIA India Same as above

Venue: 13-M5 Hours

On this <u>25H</u> day of <u>Twv</u>, 2011, then personally appeared before me the above-named **Santhosh V. Kudva** known to me through satisfactory evidence of identification [_] employee identification card; [<u>v</u>] driver's license; [<u>v</u>] (other) to be the person whose name is subscribed to

the foregoing Assignment and acknowledged that he/she executed the same as his/her free act and deed for the purposes therein contained.

-3-

ED BY ME

Notary Publict.G. VENKATARAMU B.Com.,LL.B. Print Name: ADVOCATE & NOTARY No. 717/8, 6th 'A' Main, Srinagar, BANGALORE-560 050.

My Commission expires 14 / 52 / 2013



1997年日、1997日日日日日日日 第日の日本日日日の日本日日の日本 <u>第日の日日の</u>第三日本社 Fabrica OMAR

Date:

Inventor's Signature

Print full name of second inventor: Residence:

Citizenship:

Mailing Address:

Michael E. Bappe 1017 Knobcone Place Loveland, CO 80538 United States of America Same as above

STATE/COMMONWEALTH OF COUNTY OF

On this ______ day of ______, 2011, then personally appeared before me the above-named **Michael E. Bappe** known to me through satisfactory evidence of identification [__] employee identification card; [__] driver's license; [__] (other) to be the person whose name is subscribed to

the foregoing Assignment and acknowledged that he/she executed the same as his/her free act and deed for the purposes therein contained.

-4-

Notary Public

Print Name:

My Commission expires ___ / ___ / ___

Date:

Inventor's Signature

Print full name of third inventor: Residence:

Citizenship: Mailing Address: Helen S. Raizen 51 Bynner Street Jamaica Plain, MA 02130 United States of America Same as above

STATE/COMMONWEALTH OF COUNTY OF

On this ______day of ______, 2011, then personally appeared before me the above-named **Helen S. Raizen** known to me through satisfactory evidence of identification [__] employee identification card; [__] driver's license; [__] (other) to be the person whose name is subscribed to

the foregoing Assignment and acknowledged that he/she executed the same as his/her free act and deed for the purposes therein contained.

-5-

Notary Public

Print Name:

My Commission expires ___ / ___ /

Date:

Inventor's Signature

Print full name of fourth inventor: Residence:

Citizenship:

Mailing Address:

Thomas W. Bennett 31 Pinebrook Road Nashua, NH 03062 United States of America Same as above

STATE/COMMONWEALTH OF COUNTY OF

On this _____ day of _____, 2011, then personally appeared before me the above-named **Thomas W. Bennett** known to me through satisfactory evidence of identification [__] employee identification card; [__] driver's license; [__] (other) ______ to be the person whose name is subscribed to

the foregoing Assignment and acknowledged that he/she executed the same as his/her free act and deed for the purposes therein contained.

-6-

Notary Public

Print Name:

My Commission expires ____ / ___ / ____/

ASSIGNMENT

WHEREAS, we, Santhosh V. Kudva, Michael E. Bappe, Helen S. Raizen and Thomas W. Bennett have invented an invention comprising and/or embodying certain improvements or discoveries or both as described in an application for Letters Patent of the United States entitled ELECTRONICALLY CONTROLLING COMMITMENT OF A CHANGE TO STORED INFORMATION the specification of which:

- [] is being executed on even date herewith and is about to be filed in the United States Patent Office;
- [X] was filed on March 31, 2011 as U.S. Application No. <u>13/077,175;</u>

[] was patented under U.S. Patent No. _____on____

WHEREAS, EMC Corporation (hereinafter "ASSIGNEE"), a corporation organized and existing under the laws of the Commonwealth of Massachusetts and having a usual place of business at 176 South Street, Hopkinton, Massachusetts 01748 desires to acquire an interest therein in accordance with agreements duly entered into with us;

NOW, THEREFORE, to all whom it may concern be it known that for and in consideration of said agreements and of other good and valuable consideration, the receipt of which is hereby acknowledged, we have sold, assigned and transferred and by these presents do hereby sell, assign and transfer unto said ASSIGNEE, its successors, assigns and legal representatives, the entire right, title and interest in and throughout the United States of America, its territories and all foreign countries, in and to said invention as described in said application, together with the entire right, title and interest in and to said application and such Letters Patent as may issue thereon; said invention, application and Letters Patent to be held and enjoyed by said ASSIGNEE for its own use and behalf and for its successors, assigns and legal representatives, to the full end of the term for which said Letters Patent may be granted as fully and entirely as the same would have been held by us had this assignment and sale not been made; we hereby convey to ASSIGNEE all rights arising under or pursuant to any and all international agreements, treaties or laws relating to the protection of industrial property by filing any such applications for Letters Patent. We hereby acknowledge that this assignment, being of the entire right, title and interest in and to said invention, carries with it the right in ASSIGNEE to apply for and obtain from competent authorities in all countries of the world any and all Letters Patent by attorneys and agents of ASSIGNEE's selection and the right to procure the grant of all such Letters Patent to ASSIGNEE for its own name as assignee of the entire right, title and interest therein;

AND, we hereby further agree for ourselves and our executors and administrators to execute upon request any other lawful documents and likewise to

-1-

perform any other lawful acts which may be deemed necessary to secure fully the aforesaid invention to said ASSIGNEE, its successors, assigns and legal representatives, but at its or their expense and charges, including the execution of applications for patents in foreign countries, and the execution of substitution, reissue, divisional or continuation applications and preliminary or other statements and the giving of testimony in any interference or other proceeding in which said invention or any application or patent directed thereto may be involved;

AND, we do hereby authorize and request the Commissioner of Patents of the United States to issue such Letters Patent as shall be granted upon said application or applications based thereon to said ASSIGNEE, its successors, assigns, and legal representatives;

AND we hereby authorize our attorneys Bainwood Huang & Associates LLC to insert here in parentheses (_______) the application number and filing date of said Application (or foreign counterpart application) to facilitate the recording or other official processing of this Assignment.

IN TESTIMONY WHEREOF, we have hereunto set our hands and affixed our seals as set forth below:

PATENT REEL: 026548 FRAME: 0712

-2-

Date:

	Inv	entor's	s Signatur	е
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Print full name of first inventor: Residence:

Citizenship:

Mailing Address:

Santhosh V. Kudva Canara Foundry, Maroli Mangalore, Karnataka 575005 INDIA India Same as above

Venue:

On this ______day of ______, 2011, then personally appeared before me the above-named **Santhosh V. Kudva** known to me through satisfactory evidence of identification [__] employee identification card; [__] driver's license; [__] (other) ______ to be the person whose name is subscribed to the foregoing Assignment and acknowledged that he/she executed the same as his/her free act and deed for the purposes therein contained.

Notary Public

Print Name:

My Commission expires ____ / ____ / ____ /

Date:

5-17-11

Inventor's Signature

Print full name of second inventor: Residence:

Citizenship:

Mailing Address:

Michael E. Bappe 1017 Knobcone Place Loveland, CO 80538 United States of America Same as above

STATE/COMMONWEALTH OF COUNTY OF

On this ______ day of ______, 2011, then personally appeared before me the above-named **Michael/E. Bappe** known to me through satisfactory evidence of identification [__] employee identification card; [_X] driver's license; [__] (other) _______ to be the person whose name is subscribed to the foregoing Assignment and acknowledged that he/she executed the same as his/her free act and deed for the purposes therein contained.



Notary Public Print Name: My Commission expires <u>3</u>/24/ 2014

Date:

Print full name of third inventor: Residence: Helen S. Raizen 51 Bynner Street Jamaica Plain, MA 02130 United States of America Same as above

Inventor's Signature

Citizenship:

Mailing Address:

STATE/COMMONWEALTH OF ______COUNTY OF _____

On this _____ day of _____, 2011, then personally appeared before me the above-named **Helen S. Raizen** known to me through satisfactory evidence of identification [__] employee identification card; [__] driver's license; [__] (other) ______ to be the person whose name is subscribed to the foregoing Assignment and acknowledged that he/she executed the same as his/her

the foregoing Assignment and acknowledged that he/she executed the same as his/he free act and deed for the purposes therein contained.

-5-

Notary Public

Print Name:

My Commission expires ___ / ___ / ____

Date:

Print full name of fourth inventor: Residence: Thomas W. Bennett 31 Pinebrook Road Nashua, NH 03062 United States of America Same as above

Inventor's Signature

Citizenship:

Mailing Address:

STATE/COMMONWEALTH OF ______COUNTY OF _____

On this _____ day of _____, 2011, then personally appeared before me the above-named **Thomas W. Bennett** known to me through satisfactory evidence of identification [__] employee identification card; [__] driver's license; [__] (other) ______ to be the person whose name is subscribed to the foregoing Assignment and acknowledged that he/she executed the same as his/her

the foregoing Assignment and acknowledged that he/she executed the same as his/her free act and deed for the purposes therein contained.

Notary Public

Print Name:

My Commission expires ___ / ___ / ___

PATENT REEL: 026548 FRAME: 0716

-6-

ASSIGNMENT

WHEREAS, we, Santhosh V. Kudva, Michael E. Bappe, Helen S. Raizen and Thomas W. Bennett have invented an invention comprising and/or embodying certain improvements or discoveries or both as described in an application for Letters Patent of the United States entitled ELECTRONICALLY CONTROLLING COMMITMENT OF A CHANGE TO STORED INFORMATION the specification of which:

- [] is being executed on even date herewith and is about to be filed in the United States Patent Office;
- [X] was filed on <u>March 31, 2011</u> as U.S. Application No. <u>13/077,175;</u>
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NOW, THEREFORE, to all whom it may concern be it known that for and in consideration of said agreements and of other good and valuable consideration, the receipt of which is hereby acknowledged, we have sold, assigned and transferred and by these presents do hereby sell, assign and transfer unto said ASSIGNEE, its successors, assigns and legal representatives, the entire right, title and interest in and throughout the United States of America, its territories and all foreign countries, in and to said invention as described in said application, together with the entire right, title and interest in and to said application and such Letters Patent as may issue thereon; said invention, application and Letters Patent to be held and enjoyed by said ASSIGNEE for its own use and behalf and for its successors, assigns and legal representatives, to the full end of the term for which said Letters Patent may be granted as fully and entirely as the same would have been held by us had this assignment and sale not been made; we hereby convey to ASSIGNEE all rights arising under or pursuant to any and all international agreements, treaties or laws relating to the protection of industrial property by filing any such applications for Letters Patent. We hereby acknowledge that this assignment, being of the entire right, title and interest in and to said invention, carries with it the right in ASSIGNEE to apply for and obtain from competent authorities in all countries of the world any and all Letters Patent by attorneys and agents of ASSIGNEE's selection and the right to procure the grant of all such Letters Patent to ASSIGNEE for its own name as assignee of the entire right, title and interest therein;

AND, we hereby further agree for ourselves and our executors and administrators to execute upon request any other lawful documents and likewise to

perform any other lawful acts which may be deemed necessary to secure fully the aforesaid invention to said ASSIGNEE, its successors, assigns and legal representatives, but at its or their expense and charges, including the execution of applications for patents in foreign countries, and the execution of substitution, reissue, divisional or continuation applications and preliminary or other statements and the giving of testimony in any interference or other proceeding in which said invention or any application or patent directed thereto may be involved;

AND, we do hereby authorize and request the Commissioner of Patents of the United States to issue such Letters Patent as shall be granted upon said application or applications based thereon to said ASSIGNEE, its successors, assigns, and legal representatives;

AND we hereby authorize our attorneys Bainwood Huang & Associates LLC to insert here in parentheses (_______) the application number and filing date of said Application (or foreign counterpart application) to facilitate the recording or other official processing of this Assignment.

IN TESTIMONY WHEREOF, we have hereunto set our hands and affixed our seals as set forth below:

Date:

Invon	toro	Cian	otu	ro
Inven	IOI S	SIG	alu	re

Print full name of first inventor: Residence:

Citizenship:

Mailing Address:

Santhosh V. Kudva Canara Foundry, Maroli Mangalore, Karnataka 575005 INDIA India Same as above

Venue:

On this ______ day of ______, 2011, then personally appeared before me the above-named **Santhosh V. Kudva** known to me through satisfactory evidence of identification [__] employee identification card; [__] driver's license; [__] (other) ______ to be the person whose name is subscribed to the foregoing Assignment and acknowledged that he/she executed the same as his/her free act and deed for the purposes therein contained.

Notary Public

Print Name:

My Commission expires ____ / ____ / ____

Date:

Inventor's Signature

Print full name of second inventor: Residence: Michael E. Bappe 1017 Knobcone Place Loveland, CO 80538 United States of America Same as above

Citizenship: Mailing Address:

STATE/COMMONWEALTH OF ______ COUNTY OF _____

On this _____ day of ______, 2011, then personally appeared before me the above-named **Michael E. Bappe** known to me through satisfactory evidence of identification [__] employee identification card; [__] driver's license; [__] (other) ______ to be the person whose name is subscribed to the foregoing Assignment and acknowledged that he/she executed the same as his/her free act and deed for the purposes therein contained.

Notary Public

Print Name:

My Commission expires ___ / ___ / ____

Date: May 16, 2011

Inventor's Signature

Print full name of third inventor: Residence:

Citizenship:

Mailing Address:

Helen S. Raizen 51 Bynner Street Jamaica Plain, MA 02130 United States of America Same as above

STATE/COMMONWEALTH OF 1959gch46eds COUNTY OF

On this day of day of 2011, then personally appeared before me the above-named **Helen S. Raizen** known to me through satisfactory evidence of identification [] employee identification card; driver's license; [] (other) to be the person whose name is subscribed to

the foregoing Assignment and acknowledged that he/she executed the same as his/her free act and deed for the purposes therein contained.

Notary ublia

Print Name:

NGIN

My Commission expires 130 /2012



Date:

Attorney Docket No.: 1003-116 EMC Docket No.: EMC-10-349

PATENT/Joint Assignment

Inventor's Signature

Print full name of fourth inventor: Residence:

Citizenship:

Mailing Address:

Thomas W. Bennett 31 Pinebrook Road Nashua, NH 03062 United States of America Same as above

STATE/COMMONWEALTH OF COUNTY OF

_day of JY On this , 2011, then personally appeared before me the above-named Thomas W. Bennett known to me through satisfactory evidence

of identification [__] employee identification card; [____ driver's license; [__] (other)

to be the person whose name is subscribed to the foregoing Assignment and acknowledged that he/she executed the same as his/her free act and deed for the purposes therein contained

Notary Public

Print Name:

M/Gry LHOBle

My Commission expires <u>(130</u> (20))



RECORDED: 07/06/2011